

# ABSTRACT OF THE DISCLOSURE

5 A phase comparator includes a phase comparison unit performing a phase comparison. The phase comparison unit carries out a switching operation according to the exclusive OR between two signals to be compared and passes or receives a current to or from an output node according to a resultant phase difference. The exclusive OR is associated with the switching operation of two transistors. Namely, when one of the two transistors is turned on, the result of the exclusive OR is L level. Accordingly, the charging/discharging time for an output signal of a logic circuit is shortened and a stable phase comparison can be performed.

10